

I. AMENDMENT

Please amend claims 1, 9, 14-18, 39, 40, 46, and 51-55 as set forth below. Please cancel claims 8, 12, 13, 45, and 49-50 without prejudice or disclaimer. Upon entry of the present amendment, the status of the claims will be as follows:

1. (Currently amended) A fusion protein comprising:
 - (a) a subject protein; and
 - (b) a polyanionic domain attached to the subject protein at a terminal region, wherein the polyanionic domain binds to a polycationic coating deposited on a solid support and the polyanionic domain has the formula $[-(\text{Ala-Gly})_x\text{-Pro-Glu-Gly-}]_n$ or $[-(\text{Ala-Gly})_x\text{-Glu-Gly-}]_n$.
2. (Original) The protein of claim 1, wherein the terminal region is the amino-terminal region.
3. (Original) The protein of claim 1, wherein the terminal region is the carboxyl-terminal region.
4. (Original) The protein of claim 1, wherein the polyanionic domain contains about 10 to 30 anionic amino acid residues.
5. (Original) The protein of claim 4, wherein the anionic amino acid residues are glutamic acid residues.
6. (Original) The protein of claim 4, wherein the anionic amino acid residues are aspartic acid residues.

7. (Original) The protein of claim 4, wherein the anionic amino acid residues are aspartic acid and glutamic acid residues.
8. (Cancelled).
9. (Currently amended) The protein of claim-~~8~~1, wherein x is 0, 1, 2, 3, 4, 5, 6, 7 or 8 and n is an integer between about 1 and 40.
10. (Original) The protein of claim 9, wherein x is 3 and n is 16.
11. (Original) The protein of claim 9, wherein x is 3 and n is 36.
- 12-13. (Cancelled).
14. (Currently amended) The protein of claim-~~13~~9, wherein x is 4 and n is 16.
15. (Currently amended) The protein of claim-~~13~~9, wherein x is 4 and n is 18.
16. (Currently amended) The protein of claim-~~13~~9, wherein x is 4 and n is 28.
17. (Currently amended) The protein of claim-~~13~~9, wherein x is 5 and n is 14.
18. (Currently amended) The protein of claim-~~13~~9, wherein x is 6 and n is 14.

19. (Original) A method for non-covalently attaching a subject protein to a solid support comprising:
- (a) fusing to a terminus of the subject protein, an artificial polyanionic protein thereby forming a fused protein;
 - (b) applying a polycationic coating to the solid support; and
 - (c) dispensing the fused protein in solution to the solid support;
- thereby noncovalently attaching the subject protein to the solid support.
20. (Original) The method of claim 19, wherein the terminus of the subject protein is the amino terminus.
21. (Original) The method of claim 19, wherein the terminus of the subject protein is the carboxyl terminus.
22. (Original) The method of claim 19, wherein the polyanionic protein has the formula:
$$-[-(\text{Ala-Gly})_x\text{-Pro-Glu-Gly-}]_n.$$
23. (Original) The method of claim 19, wherein x is 0, 1, 2, 3, 4, 5, 6, 7 or 8 and n is an integer between 1 and 40.
24. (Original) The method of claim 23, wherein x is 3 and n is 16.
25. (Original) The method of claim 23, wherein x is 3 and n is 36.
26. (Original) The method of claim 23, wherein the polyanionic protein has the formula:
$$-[-(\text{Ala-Gly})_x\text{-Glu-Gly-}]_n.$$

27. (Original) The method of claim 26, wherein x is 0, 1, 2, 3, 4, 5, 6, 7 or 8, and n is an integer between 1 and 40.
28. (Original) The method of claim 27, wherein x is 4 and n is 16.
29. (Original) The method of claim 27, wherein x is 4 and n is 18.
30. (Original) The method of claim 27, wherein x is 4 and n is 28.
31. (Original) The method of claim 27, wherein x is 5 and n is 14.
32. (Original) The method of claim 27, wherein x is 6 and n is 14.
33. (Original) The method of claim 19, wherein the polycationic coating is a polyamino acid.
34. (Original) The method of claim 33, wherein the polyamino acid solution is a homo-polyamino acid solution.
35. (Original) The method of claim 34, wherein the homo-polyamino acid solution is poly-L-lysine.
36. (Original) The method of claim 33, wherein the polyamino acid solution is a random copolymer or a specific copolymer.

37. (Original) The method of claim 19, wherein the dispensing of fused protein solution results in a discrete, identifiable droplet.

38. (Original) A method of producing an array of two or more subject proteins comprising:

- (a) fusing to the termini of each subject protein an artificial polyanionic protein thereby forming fused proteins;
- (b) applying a polycationic coating to the solid support; and
- (c) dispensing each fused protein in solution to the solid support such that each fused protein solution is located in a discrete identifiable droplet on the solid support;

thereby producing an array of the subject proteins.

39. (Currently amended) An array of ~~subject fusion proteins produced by the method of claim 38.~~ each fusion protein comprising:

- (a) a subject protein; and
- (b) a polyanionic domain attached to the subject protein at a terminal region, wherein the polyanionic domain binds to a polycationic coating deposited on a solid support and the polyanionic domain has the formula $-\text{[(Ala-Gly)}_x\text{-Pro-Glu-Gly-]}_n$ or $-\text{[(Ala-Gly)}_x\text{-Glu-Gly-]}_n$.

40. (Currently amended) A microarray comprising:

- (a) a solid support having a polycationic coating; and
- (b) one or more fusion proteins non-covalently attached to the solid support in orderly discrete spots;

each fusion protein comprising: (i) a subject protein; and (ii) a polyanionic domain attached to the subject protein at a terminal region, wherein the polyanionic domain binds to the polycationic coating and the polyanionic domain has the formula $[-(\text{Ala-Gly})_x\text{-Pro-Glu-Gly-}]_n$ or $[-(\text{Ala-Gly})_x\text{-Glu-Gly-}]_n$.

41. (Original) The microarray of claim 40, wherein the solid support is a glass slide.

42. (Original) The microarray of claim 40, wherein the polycationic coating is a polyamino acid.

43. (Original) The microarray of claim 42, wherein the polyamino acid is poly-L-lysine.

44. (Original) The microarray of claim 40, wherein the fusion protein comprises a subject protein and a polyanionic domain.

45. (Cancelled).

46. (Currently amended) The microarray of claim ~~45~~ 40, wherein x is 0, 1, 2, 3, 4, 5, 6, 7 or 8 and n is an integer between 1 and 40.

47. (Original) The microarray of claim 46, wherein x is 3 and n is 16.

48. (Original) The microarray of claim 46, wherein x is 3 and n is 36.

49-50. (Cancelled).

51. (Currently amended) The microarray of claim-~~49~~ 46, wherein x is 4 and n is 16.

52. (Currently amended) The microarray of claim-~~49~~ 46, wherein x is 4 and n is 18.

53. (Currently amended) The microarray of claim-~~49~~ 46, wherein x is 4 and n is 28.

54. (Currently amended) The microarray of claim-~~49~~ 46, wherein x is 5 and n is 14.

55. (Currently amended) The microarray of claim-~~49~~ 46, wherein x is 6 and n is 14.

56. (Original) A plurality of fusion proteins of claim 1.